

Abstract

The goal of this thesis is to conduct practical research in the field of bathymetry regarding the influence of the tides into the nature reserve Burchtse Weel. The research is conducted by processing height measurements, in their turn used to calculate volumetric changes to provide a clear picture regarding sedimentation in the Burchtse Weel. The results of the volumetric development, spanning a period of seven years, are analysed using former sedimentation balances and more recent sedimentation strategies developed for the Lower-Zeescheldt. The observed volumetric growth is, on the one hand, clarified by findings regarding the higher grade of erosion of sludge in shallow waters, related to the entrance of the tidal gates. The net positive transport of sludge in the direction of the Lower-Zeescheldt, observed in the sedimentation balances, is also a plausible factor regarding this research. On the other hand, it's stated that, relative to the obtained data, that the rise in dredging activities conducted for maintenance of the Lower-Zeescheldt are likely influencing the occurring sedimentation. Despite the fact that the sedimentation is proceeding at a rapid pace, the Burchtse Weel during these years has transformed into a unique biotope that serves as a refuge for the many bird species which choose to perch there.